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ABSTRACT

The military offers education, training, and employment to novices to the workforce, our nation's youth. The military continues to be a trailblazer with regard to testing and human resource assessment. The author maintains that no compendium on career counseling would be complete without mentioning the military. This chapter provides a condensed snapshot of the Career Exploration Program and Department of Defense's commitment to career assessment for both military and civilian careers. (Contains 20 references and 1 table.) (GCP)

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Chapter 22
Test Consumers in the Military
Use of the Military Career Exploration Program in Schools

Janice H. Laurence

The military is not just a job—it's hundreds of jobs, with plenty of positions to boot. In terms of providing education, training, and employment, the military is unparalleled. The army, navy, marine corps, and air force enlist about 200,000 new recruits and commission more than 16,000 officers annually for active duty. These newcomers top off an incumbent strength of almost 1.4 million active members. Although most of the almost 900,000 selected reservists have had active duty experience, well more than 50,000 come in fresh from civilian life (Department of Defense, 2000).

Besides the traditional combat and seamanship roles, the enlisted military workforce comprises technicians, clerks, administrative associates, mechanics, computer specialists, high-tech equipment operators and repair specialists, health care specialists, and a host of other positions. Table 1 shows the occupational distribution of the enlisted ranks as of fiscal year 1999 (Department of Defense, 2000).

Table 1. Occupational Distribution of U.S. Military Enlisted Force (1999)

Department of Defense Occupational Group	Percentage of Enlisted Force
Infantry, gun crews, and seamanship specialists	17.0
Electronic equipment repair specialists	9.4
Communications and intelligence specialists	9.0
Medical and dental specialists	6.9
Other allied specialists	3.0
Functional support and administration	6.0
Electrical/mechanical equipment repair specialists	19.8
Craftspeople	3.5
Service and supply handlers	8.5
Nonoccupational military	6.9

About one in six enlisted members could be classified as a combat job incumbent or a general military employee, whereas one in five serves in a high-tech job in electronic equipment repair, communications and intelligence, or other allied specialist. Even combat jobs have become more technologically complex and relatively less labor intensive over the years—and more manpower has been added behind the combat scenes. Although most military jobs are in the blue collar category (infantry, gun crew, seamanship specialists; electrical and mechanical equipment repair specialists; and craftspeople), white collar positions (electronic equipment repair specialists; communications and intelligence specialists; medical and dental specialists; other technical and allied specialists; and administration) are almost as plentiful.

The most common jobs in the military are in electrical and mechanical equipment repair, with about one in five armed services workers engaged as an aircraft, automobile, and engine mechanic; ordnance mechanic; line installer; or radio, radar, and sonar equipment repair specialist. About one in six military workers is employed in administration as a stock and inventory clerk, shipping and receiving clerk, dispatcher, and the like.

The military services do not cull seasoned civilian workers to fill the ranks. Instead, they recruit novices and train them to perform myriad duties. Evidence shows that entry-level military jobs are more complex and demanding of workers than are civilian jobs (Laurence, 1994). Thus, selection and classification testing (i.e., assessment) is critical to staffing the military.

Military Career Counseling

Given military workforce requirements, is it any wonder that the military is a steadfast consumer—and producer—of career assessments? The military has in fact been a trailblazer with regard to cognitive test development and validation (Eitelberg, Laurence, & Waters, 1984). Numerous psychometricians and educational psychologists dedicate their efforts to maintain, update, advance, and monitor the exemplary cognitive testing program of the Department of Defense (DoD). The Armed Services Vocational Aptitude Battery (ASVAB; DoD, 1999) measures aptitudes in 10 areas (General Science, Arithmetic Reasoning, Word Knowledge, Paragraph Comprehension, Numerical Operations, Coding Speed, Auto and Shop Information, Mathematics Knowledge, Mechanical Comprehension, and Electronics Information). Various combinations of these subtests are used to assess overall cognitive

aptitude as well as aptitudes for performing in specific jobs.

The ASVAB contributes to personnel selection and placement decisions and hence is an important component of military personnel readiness. The attention and resources focused on norming and validation with regard to technical training grades, administrative records, supervisory ratings, job knowledge test scores, and hands-on job performance measures are laudable and unparalleled (see, e.g., Bock & Mislevy, 1981; Fairbank et al., 1990; Green & Wigdor, 1991; Green, Wing, & Wigdor, 1988). Indeed, ASVAB results reliably indicate one's standing relative to the U.S. population of youth ages 18 to 23. Time and again, studies have shown that subtest composite scores fairly and validly assess the likelihood of achieving technical proficiency or effectiveness across the wide spectrum of jobs found in the military (most of which have civilian counterparts).

Since 1968, the DoD has offered the ASVAB at no cost to high schools nationwide to promote career exploration and to facilitate recruiting. Known originally as the Student Testing Program (STP), this idea blossomed over the years into the Career Exploration Program (CEP)—a professional and comprehensive career counseling tool for schools and students. Service recruiters receive the names and ASVAB scores of participating students who agree to have this information released. Thus, there are strings attached to CEP participation, but they are not demanding.

Each year, about 900,000 students in more than 14,000 schools take the ASVAB. More than one fourth of high school seniors participate in the CEP at some point during high school (Baker, 2000). The CEP is designed to help students, primarily 11th- and 12th-graders, explore both military and civilian careers through materials that support educational and career counseling. Recruiters can use the results to identify individuals who qualify for military service. Three primary CEP components assess aptitudes, interests, and work values:

1. The 10 ASVAB subtests are combined and scores are reported on three composites: Verbal Ability, Math Ability, and Academic Ability. ASVAB codes highlight similarities between the aptitude levels of test takers and those of incumbents already performing various jobs. Military Career Scores estimate the likelihood that an individual will qualify for enlistment.
2. The Interest-Finder identifies areas of interest to the test taker (Realistic, Investigative, Artistic, Social, Enterprising, and Conventional).

3. OCCU-FIND links ASVAB and Interest-Finder results, along with other information (e.g., educational goals, work values) to 201 occupations organized by interest area.

Detailed test results (and interpretation) are provided to students, with copies for counselors. Besides the support provided by Education Services Specialists (ESS), civilians with an educational or counseling background, and recruiters, materials are available to help school staff, students, and their parents get the most out of the CEP. These include the *Educator and Counselor Guide*, *Student and Parent Guide*, *Counselor Manual*, *Student Workbook*, *Military Careers*, *Technical Manual*, and *Recruiter Guide*. (Most of these documents are available for download from the ASVAB website at www.asvabprogram.com.) The ASVAB is also incorporated into many Career Information Delivery Systems (CIDS)—computerized career information systems made available by states, regions, and commercial vendors.

Recruiting

Military recruiting is always challenging. Getting the word out about military career opportunities is therefore a vital service of the CEP. The ASVAB CEP is an effective marketing and recruiting tool. The program is valued by recruiters as a means of obtaining access to schools, making contact with individual students, and identifying those who are qualified for and interested in military service. Up to one fifth of CEP participants subsequently enlist in the military (Laurence & Ramsberger, 1999).

Evidence suggests that the CEP is a positive influence on those who formerly held neutral or negative views regarding military service (Laurence, Wall, Barnes, & Dela Rosa, 1998). CEP participants are more likely to express an interest in joining one of the military services as a result of the information obtained through the CEP. In addition, data suggest that CEP participants are more likely than nonparticipants to view the military as a place where they can obtain money for education, learn a valuable trade or skill, and receive job preparation.

The ASVAB CEP targets non–college-bound youth. Largely because of its vocational emphasis, the CEP has traditionally been more attractive to young people who are not considering postsecondary education, at least not for the immediate future. Given the increasing numbers of students choosing postsecondary educational opportunities, however, it is important for students to recognize the college

opportunities afforded by the military, such as the Voluntary Education Program, the Montgomery GI Bill, and the officer track (Asch, Kilburn, & Klerman, 1999). Besides exploring career and other opportunities afforded by the military, college-bound youth can benefit from exposure to the CEP testing process and outcomes.

Career Decisions

Schools that participate in the CEP choose to do so for a number of reasons: the program is free; it is an effective tool for counseling non–college-bound youth; it provides an opportunity for military career exploration; and it is a readily available, well-documented career exploration tool. Further, the CEP is comprehensive and effective in meeting school career counseling needs, has a positive impact on student career exploration, and is at least as good as other programs (Laurence & Ramsberger, 1999). The vocational emphasis of the program as well as the supplementary materials (e.g., *Student Workbook*) and counseling support provided by the military fill a void, especially in economically deprived schools. Although many students are well prepared for the frenetic activities of registering, paying, and convening for the ACT Assessment or the SAT, others, without plans for college or mentors to show them the ropes, might well remain forgotten without the CEP.

The ASVAB alone provides invaluable information for civilian career counseling. Composites from the ASVAB are predictive of high school course grades (Fairbank, Welsh, & Sawin, 1990). ASVAB tests also correlate highly with comparable tests from civilian aptitude and achievement batteries (Department of Defense, 1999). Based on patterns of ASVAB scores, Armstrong, Chalupsky, McLaughlin, and Dalldorf (1988) classified a sample of individuals into their civilian occupations with a statistically significant degree of accuracy. Even more salient is a study that provides direct evidence of the criterion-related validity of the ASVAB for a sample of 11 different civilian occupations (e.g., bus driver, computer operator, word processor, nurse, electronics technician; Holmgren & Dalldorf, 1993). Further, the accepted theory of validity generalization together with the results of a military-civilian occupational crosswalk extend this mound of evidence from military occupations and the congruent findings from selected civilian jobs to additional occupations. In other words, the ASVAB has demonstrated validity for military and civilian jobs. It is technically acceptable to extrapolate these findings to encompass jobs for which performance is validly predicted by measures highly correlated with ASVAB and for

jobs that are highly similar to those included in ASVAB validation studies (Department of Defense, 1999). That is, there is sound statistical evidence that test validity is not situation- or job-specific; rather, if validity is established in one job, it holds for similar jobs. Certainly ASVAB validity has been established above and beyond applicable professional testing guidelines and practices.

The DoD has gone beyond investment in the development and administration of the ASVAB, and program evaluation extends beyond its value in recruiting. Systematic evaluation efforts have provided sound evidence that adolescents who participate in this broad-based program show an increase in career development efforts (Baker, in press; Levine, Huberman, & Wall, 1996). The national normative base of 18- to 23-year-olds, most appropriate for enlistment decisions, was supplemented for CEP use with a high school sample of almost 10,000 students in grades 10 through 12. The inclusion of the additional sample of high school students reinforces the utility of the CEP, especially for participants in 10th grade (Department of Defense, 1999).

The CEP is based upon sound psychometric and vocational personality theory (Wall & Baker, 1997). Participants are provided with more than just scores indicating their standing relative to others; the program helps students to identify occupations consistent with their interests, abilities, and values. The program provides practical information regarding the cognitive demands of and typical educational preparation needed for particular jobs, and the degree to which these jobs match one's preferences for certain activities and the values that one is looking to satisfy through one's career (e.g., challenge, creativity, physical activity, independence; Wall, 1994). This comprehensive and integrated program under DoD's aegis promotes knowledge of self, occupational opportunities, and the world of work. It reduces career confusion and facilitates judgments of career attractiveness (Baker, in press).

Some Parting Thoughts on the CEP

With its dual goals of recruiting and career counseling, the CEP does not operate without suspicion or conflict. Those suspicious of military recruiting efforts can rest assured that the program has strong technical underpinnings. Aptitudes, interests, and preferences are indeed linked to civilian, not just military, jobs. Occupations included for exploration in the OCCU-FIND represent "the range of diversity in the world of work" (Wall, 1994, p. 610). Rather than limiting options, the

CEP encourages rather wide and warranted exploration. The accompanying materials highlight occupations within two contiguous cognitive complexity levels, three interest areas, and up to six personal preferences (Wall, Wise, & Baker, 1996). Certainly, an aim of the program is to garner recruiting leads; however, participants may opt not to share their results with military recruiters.

There is conflict with regard to participation because military recruiters would prefer to test only high school seniors—those who have a shot at helping them meet their recruiting objectives. There is no outcry at including juniors, but extending the CEP to sophomores (or freshmen) may be viewed as a waste of precious recruiting resources and detrimental to recruiters' short-term, "put 'em in boots" perspective. Needless to say, from a career counseling perspective, career exploration should begin early—well before the senior year of high school. This conflict does not speak ill of the program. Quite the contrary; it is the effectiveness of the CEP for recruiting and career counseling that is at the conflict's core.

Although the program is already top-notch, improvements are on the horizon. In response to demographic trends and changes in the workplace, DoD is modifying its testing and assessment practices and technical underpinnings. The psychometric properties and functioning of the Interest-Finder are scheduled for a tune-up as are the ASVAB's accompanying materials. What's more, the version of the ASVAB that is used for operational enlistment decisions is expected to have an interest measure folded in before long.

The military offers education, training, and employment to novices to the workforce, our nation's youth. The military continues to be a trailblazer with regard to testing and human resource assessment. No compendium on career counseling would be complete without mentioning the military. This chapter provides merely a condensed snapshot of the CEP and DoD's commitment to career assessment for both military and civilian careers.

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